

REMARKS

These remarks are set forth in response to the non-final office action mailed October 1, 2003 (the "Office Action"). As this amendment has been timely filed within the three-month statutory period, neither an extension of time nor a fee is required. Presently, claims 1 through 15 are pending in the Patent Application. In the Office Action, each of claims 1 through 15 have been rejected under 35 U.S.C. §102(b) as being anticipated solely by Dynamic Caching of Servlets and JSPs, WebSphere® Application Server - Version 3.5, Product Documentation at 98-110 (IBM Corporation August 8, 2000)("WAS 3.5 Documentation"). In response, the Applicants respectfully traverse the Examiner's rejections on the art and provide the following arguments in support of each of claims 1 through 15 as originally recited in the Patent Application.

Prior to addressing the rejections on the art, a brief review of the Applicant's invention is appropriate. The Applicants have invented a new and non-obvious method, system and apparatus for context sensitive caching. Caching technologies are decades old and principally address the problem of accelerating data access for data which is frequently accessed. In the prototypical caching arrangement for content distribution systems, often-accessed objects of a specific type can be placed in a temporary data store from whence the often-accessed objects subsequently can be retrieved without requiring a more time-consuming retrieval of the often-accessed object from more permanent storage. Notably, as described in pages 2 and 3 of the Patent Application, individual caching systems are tailored for the specific "context" of a cached object, for instance a database object, a remote method call, the data result of a computation, a Web page, an application component, or an image to name a few.

Given the convergence of different object types in the enterprise, it can be difficult to configure different caching engines to process different object types having specific, associated contexts. In this regard, whereas the naming convention and the key generation strategy for cached logical components such as servlets can take one form, the naming convention and the key generation strategy for cached Web pages can take another form. Moreover, the caching policies for expelling objects from the cache can change from object type to object type and context to context. Thus, the Applicants' invention addresses the difficulties presented by managing objects of different contexts in a single, common cache.

In accordance with the Applicants' invention, a context sensitive cache can cache objects generically regardless of the particular context of the cached objects. As described in page 8 of the Patent Application, exemplary contexts can include Web pages, command execution results, database access results, application archives and audio-visual files. The context sensitive cache can be a common cache managed by a common caching engine configured to cache objects of varying contexts.

The configuration of the caching engine can be provided by a set of pluggable context providers as shown in Figure 1 of the Patent Application. The pluggable context providers can provide an interface to a set of configuration specifications for a particular context. Using the pluggable context providers, the caching engine can manage cached objects associated with the particular context, including determining which objects to cache, a methodology for creating cache keys, and the rules to be applied when evicting an object from the cache. Thus, it is an advantage of the invention that a common cache can include objects of disparate contexts and the management of the cache can be facilitated through the use of pluggable contexts.

Turning now to the rejections on the art, the Examiner has cited the WAS 3.5

Documentation in support of the contention that a context-sensitive cache as claimed in the Patent Application has been anticipated by the servlet and Java server page (JSP) caching technology of the WebSphere Application Server product manufactured by IBM Corporation of Armonk, New York. Notwithstanding, the Applicants respectfully disagree. Specifically, while the Examiner is correct in observing that the WAS 3.5 Documentation indeed describes an advanced cache able to cache application components, the WAS 3.5 Documentation does not teach a context-sensitive cache as explicitly claimed in the Patent Application.

In particular, caching system described in the WAS 3.5 Documentation includes a context-specific cache configured to cache only application components—namely servlets and JSPs—and associated data. Specifically, after a servlet has executed within an application server configured with the cache, the output of the servlet, the results of the execution of the servlet, and metadata regarding the entry in the cache can be stored as a single cache entry. So much will be apparent from the following statement found in page 98 of the WAS 3.5 Documentation:

After a servlet is executed once, a cache entry is generated containing:

The servlet's output

Results of the servlet's execution, including calls to other servlets and JSP files

Metadata about the servlet's entry in the cache, including timeout values and entry priority information.

(emphasis added).

Significantly, the cache entry is a single entry containing all of the above-described elements of the servlet. Each entry, of course, can be a unique entry in the cache which can be identified by a string generated from the servlet request object, `HttpServletRequest`. In any case, the skilled artisan will recognize that the foregoing cache entry is of a single context—that of a

servlet. The single context includes a well-defined configuration and the caching engine described in the WAS 3.5 Documentation is tailored specifically for this context.

As the servlet caching mechanism of the WAS 3.5 Documentation is but a single, context-specific cache, the WAS 3.5 Documentation necessarily fails to teach a context-sensitive cache able to store within a common cache, objects of disparate contexts. So much has been explicitly claimed by the Applicants in the Patent Application. For instance, Claim 1 of the Patent Application recites a context sensitive caching system having the following five elements:

1. A common cache.
2. A common caching engine configured to write cacheable objects to the common cache, and being further configured to retrieve cacheable objects stored in the common cache.
3. A shared name generator configured to formulate cache keys for locating the cacheable objects written to the common cache.
4. A plurality of configuration specifications, each configuration specification specifying a caching policy for a single context.
5. A plurality of pluggable context providers, each provider providing the common caching engine with an interface to corresponding configuration specifications.

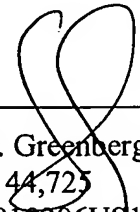
It will be understood that as a single-context cache, the cache described in the WAS 3.5 Documentation wholly lacks the fourth and fifth elements of Claim 1. Specifically, multiple configuration specifications for different contexts are not described in the WAS 3.5 Documentation because the dynamic servlet and JSP cache is a single-context cache. Similarly, the WAS 3.5 Documentation fails to mention even the notion of a pluggable context provider for

describing an interface to a configuration specification for a particular context among multiple contexts. Accordingly, one must conclude that the WAS 3.5 Documentation cannot anticipate the invention described in each of the Applicants' claims 1 through 15.

In conclusion, the teachings of WAS 3.5 Documentation are not sufficient to support the rejection of any of claims 1 through 15. For all of the above reasons, the claim objections are believed to have been overcome placing Claims 1 through 15 in condition for allowance, and reconsideration and allowance thereof is respectfully requested. The Examiner is encouraged to telephone the undersigned to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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